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| 09/914,232 | 08/24/2001 | Tetsuo Fukami | OGOH:090 | 1854 |
| 7590 09/16/2004 | | | EXAMINER | |
| Parkhurst & Wendel 1421 Prince Street Suite 210 Alexandria, VA 22314-2805 | | | RAO, SHRINIVAS H | |
| | | | ART UNIT | PAPER NUMBER |
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DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,232

Applicant(s)

FUKAMI ET AL.9

Examiner

Steven H. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 2,4-6,8 and 10-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 2,4-6,8 and 10-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/13/ 2001.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of paper submitted under 35 U.S.C. 371, claiming priority from Japanese Patent Application Nos. 11/367172 filed on December 24, 199 and 2000/4279 filed on January 13, 2000 which papers have been placed of record in the file.

Information Disclosure Statement

Acknowledgment is made of receipt of Applicant's Information Disclosure Statement (PTO-1449) filled 11/ 13 / 2001.

The references on PTO 1499 submitted on November 13, 2001 are acknowledged. All the cited references have been considered. However the foreign patents and documents cited by applicant are considered to the extent that could be understood from the abstract and drawings.

Preliminary Amendment Status

Acknowledgment is made of entry of preliminary amendment filed 08 /24 / 2001.

Election/Restrictions

Applicant's election with traverse of claims 1,3,7 and 9 in the reply filed on July 14, 2004 is acknowledged.

Therefore Applicants' have represented to the that claims 1,3,7 and 9 are the only claims (currently pending) drawn to the first embodiment as shown in figure 8 and that currently no other claims (2,5-7 and 10-41)read on embodiment one (1) described in figure 8 . For the reasons set out below there are no generic claims that relate to group I claims (1,3,7 and 9).

The following Office Action is based on the above express representation by the Applicants.

The traversal is on the ground(s) that groups 2 1-0 are sufficiently related. This is not found persuasive because the Election/Restriction requirement clearly set out the grounds why the groups are different. Applicants' blanket statement that they are related without providing any reasoning why the groups 2-10 are " sufficiently related" is not persuasive. Applicants' next contention that search for group –I would include an search for groups 2-10 also is not true and not persuasive because the differences between groups 1-10 are set out which a search for group I will be different from search for groups 2-10 . Applicants' third contention that patent Office will not unduly burdened by searching all of 10 different inventions is again wrong and The PTO will in fact be greatly burdened by having to do 10 times the work normally done. Lastly, The applicants' will not incur delay and/expense by separating the application ten different ways because every Applicant who submits ten different invention will be subject to the

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same requirement and will incur similar delay (if any) and expenses and will ensure that the present Applicants' will be treated similar to all other Applicants' and avoid any appearance of special treatment

The requirement is still deemed proper and is therefore made **FINAL**.

Claims 2,4,5-6,8 10-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Publication No. 08-240811 (Teruhira et al. Casio Computer Co., herein after Teruhira) .

With respect to claim 1 Teruhira describes a liquid crystal device having a plurality of scan signal lines and a plurality of image signal lines provided orthogonally on a substrate (English Abstract- Constituiton Section line 5) and having thin-film transistors provided in sections enclosed by the scan signal lines and the image signal

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lines, (constitution section line 3) each of the thin-film transistors serving as a switching element corresponding to one of the sections and controlling transmission of light by a semiconductor layer, the liquid crystal device using patterning to form the signal lines and the thin-film transistors, wherein: the thin-film transistors located between an adjacent two of the , two of image signal lines having respective source electrodes are connected to different image signal lines; and the respective gate, source, and drain electrodes of the two thin-film transistors are alignment-shift-compensated electrodes having configurations structures such that, even if an alignment shift occurs during the an formation of the gate, source, and drain electrodes through the patterning, at least one of a capacitance between the gate and drain electrodes and a capacitance between the gate and source electrodes is constant or varies equally in each of the two transistors. (Figures 1 to 3 and paragraphs 22 to 25)

The limitations, "each of the thin-film transistors serving as a switching element corresponding to one of the sections and controlling transmission of light by a semiconductor layer, the liquid crystal device using patterning to form the signal lines and the thin-film transistors" are taken to be use limitations and product by process limitations and cannot be given patentable weight. The claim limitations," each of the thin-film transistors serving as a switching element corresponding to one of the sections and controlling transmission of light by a semiconductor layer " is taken to be a functional recitation that has not be given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a " means " for performing the specified function, as set forth in 35 UCS Section 112,

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6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172, 388 O.G. 279. The limitation, "the liquid crystal device using patterning to form the signal lines and the thin-film transistors" is taken to be product-by-process limitations and non-limiting. A product-by-process claim is directed to the product per se, no matter how actually made. See In re Fessman, 180 USPQ 324, 326 (CCPA1974); In re Marosi et al., 218 USPQ 289, 292 (Fed. Cir. 1983); and particularly In re Thrope, 227 USPQ 964, 966 (Fed. Cir. 1985), all of which make it clear that it is the patentability of the final structure of the product "gleaned" from the process steps, which must be determined in a "product by process" claim, and not the patentability of the process. See also MPEP 2113. Moreover, an old or obvious product developed by a new method is not a patentable product, whether claimed in "product by process" claims or not.

With respect to claim 3 Teruhira, describes the liquid crystal device of claim 1, wherein each of the two thin film transistors is an overlapping-area-compensated thin-film transistor formed as means for compensating for at least one of a variation in the capacitance between the gate and drain electrodes and a variation in the capacitance between the gate and source electrodes caused by the alignment shift such that at least one of a variation in an overlapping area between the gate and drain electrodes and a variation in an overlapping area between the gate and source electrodes responsive to the alignment shift is constant or equal. (figures 1,2,3 and paragraphs 23 to 25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teruhira (Japanese Patent Publication No. 08-240811, herein after Teruhira) as applied to claims 1 and 3 above and further in view of Kondo et al. (EPA No. 0453324, herein after Kondo) ..

With respect to claim 7 Teruhira describes the liquid crystal device of claim 1, wherein each of the two thin film transistors is an overlapping-area-compensated thin-film transistor formed as means for compensating for at least one of a variation in the capacitance between the gate and drain electrodes and a variation in the capacitance between the gate and source electrodes caused that at least one of a variation in an overlapping area between a channel by the alignment shift such protective film and the drain electrode (Teruhira figures 1 to 3, paragraphs 22 to 25).

Teruhira does not specifically describe a variation in an overlapping area between the channel protective film and the source electrode responsive to the alignment shift is constant or equal.

However Kondo in figure 2 and col. 5 lines 20 to 25 describes variation in an overlapping area between the channel protective film and the source electrode

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responsive to the alignment shift is constant or equal , to compensate for the electrodes being patterned at a displaced position thereby avoiding flickers even if TFTs have different parasitic capacitances.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Kondo's variation in an overlapping area between the channel protective film and the source electrode responsive to the alignment shift is constant or equal in Teruhira's alignment shift of unspecified dimensions to compensate for the electrodes being patterned at a displaced position thereby avoiding flickers even if TFTs have different parasitic capacitances. (Kondo col. 3 lines 18-20, 38-40,53-55,etc.).

With respect to claim 9 Teruhira's describes a liquid crystal device of claim 1. Teruhira does not specifically describe the source and drain electrodes of the first one or the two thin-film transistors connected to the first one of the image signal lines are S1 and D1 and the source and drain electrodes of the second one of the two thin-film transistors connected to the second one of the image signal lines are S2 and D2, the four electrodes are arranged along the image signal lines in the order S1, D1, S2, and D2 or D1, S1, D2, and S2.

However, Kondo in figure 2 and col. 65 lines 5 to 19 and col. 6 lines 15 to 30 , etc. describe the source and drain electrodes of the first one or the two thin-film transistors connected to the first one of the image signal lines are S1 and D1 and the source and drain electrodes of the second one of the two thin-film transistors connected to the second one of the image signal lines are S2 and D2, the four electrodes are

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arranged along the image signal lines in the order S1, D1, S2, and D2 or D1, S1, D2, and S2 . (for motivation to combine see rejection of claim 7 above).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H Rao whose telephone number is (571) 272-1718. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 5:30 p.m.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.

Steven H. Rao

Patent Examiner

September 09, 2004.

LONG PHAM
PRIMARY EXAMINER